

Compiler Construction CSCI-GA.2130-001 Fall 2011 pr4

Due Fr 12/2/2011 at 1pm.

Project Milestone 4: IR generator

Implement an IR generator for TACK. Your program should translate a TACK source file to TACK IR. For this milestone, you can assume that the TACK source file does not contain any syntactic or semantic errors. The specification for the source TACK language is here:

<http://cs.nyu.edu/courses/fall11/CSCI-GA.2130-001/tack-spec.pdf>

And the specification for the TACK intermediate representation is here:

<http://cs.nyu.edu/courses/fall11/CSCI-GA.2130-001/ir-spec.pdf>

The IR that your translator produces should work with the TACK IR interpreter. See the IR specification for how to download and run the interpreter. For example, assuming the driver for your compiler is the Java class `Main`, you could first run your compiler:

```
java -ea -cp ./rats.jar Main hello.tack > hello.ir
```

Second, you could run the IR interpreter:

```
java -ea -jar IRInterpreter.jar hello.ir
```

The output from that should be the `Hello, world!` message.

Please turn in the entire, self-contained code for your IR generator, including a `README` with instructions for how to compile and run. Please make sure your solution works on one of the machines `energon1.cims.nyu.edu` to `energon4.cims.nyu.edu` at NYU. For grading, your project will be tested on those machines.

Hints and tips

1. Get started early.
2. Reuse code from the previous milestone. You can either reuse your own code, or use the example solutions, as you prefer.
<http://cs.nyu.edu/courses/fall11/CSCI-GA.2130-001/pr3-example-solutions.tar>
3. Start by getting a simple test working, then incrementally implement more cases. You can use tests from earlier project milestones, as well as write your own.

<http://cs.nyu.edu/courses/fall11/CSCI-GA.2130-001/pr4.pdf>